

Lithographic Projection Apparatus, Device Manufacturing Method,
Device Manufactured Thereby, Cleaning Unit and Method of Cleaning Contaminated Objects

ABSTRACT

Cleaning of optical components for use in a lithographic projection apparatus can be carried out by irradiating a space within the apparatus containing the optical component with UV or EUV radiation having a wavelength of less than 250nm, in the presence of an oxygen-containing species selected from water, nitrogen oxide and oxygen-containing hydrocarbons. Generally, the space will be purged with an ozone-less purge gas which contains a small amount of the oxygen-containing species in addition to the usual purge gas composition. The technique can also be used in an evacuated space by introducing a low pressure of the oxygen-containing species into the space.